CLAIM LISTING

1. (Previously Presented) A method for classifying an audio signal, said method comprising:

Calculating a plurality of linear prediction coefficients (LPC) for a portion of the audio signal;

Inverse filtering the portion of the audio signal with the plurality of linear prediction coefficients (LPC), thereby resulting in a residual signal;

Measuring the residual energy of the residual signal;

Comparing the residual energy to a threshold; and

Decimating the portion, thereby causing the portion to comprise a predetermined number of samples.

2. (Original) The method of claim 1, further comprising:

Classifying the portion of the audio signal as music, if the residual energy exceeds the threshold; and

Classifying the portion of the audio signal as speech, if the threshold exceeds the residual energy.

3. (Original) The method of claim 1, wherein the portion of the audio signal comprises a frame.

4. (Cancelled).

5. (Original) The method of claim 1, further comprising:

Spectrally flattening the portion of the audio signal.

6. (Previously Presented) A method for classifying an audio signal, said method comprising:

Taking a discrete Fourier transformation of a portion of the audio signal for a plurality of frequencies;

Calculating a plurality of linear prediction coefficients (LPC) for the portion of the signal;

Measuring an inverse filter response for said plurality of frequencies with said plurality of linear prediction coefficients (LPC);

Measuring a mean squared error between the discrete Fourier transformation of the portion of the audio signal for the plurality of frequencies and the inverse filter response;

Comparing the means squared error to a threshold; and

wherein the portion of the audio signal comprises a frame, decimating the frame, thereby causing the frame to comprise a predetermined number of samples.

7. (Original) The method of claim 6, further comprising:

Classifying the portion of the audio signal as music, if the mean squared error exceeds the threshold; and

Classifying the portion of the audio signal as speech, if the threshold exceeds the means squared error energy.

8-9. (Cancelled)

10. (Original) The method of claim 6, further comprising:

Spectrally flattening the portion of the audio signal.

11. (Presently Pending) A system for classifying an audio signal, said system comprising:

A first circuit for calculating a plurality of linear prediction coefficients (LPC) for a portion of the audio signal;

An inverse filter for inverse filtering the portion of the audio signal with the plurality of linear prediction coefficients (LPC), thereby resulting in a residual signal;

A second circuit for measuring the residual energy of the residual signal; ~~and~~

A third circuit for comparing the residual energy to a threshold; and

A decimator for decimating the portion, thereby causing the portion to comprise a predetermined number of samples.

12. (Original) The system of claim 11, further comprising:

Logic for classifying the portion of the audio signal as music, if the residual energy exceeds the threshold and classifying the portion of the audio signal as speech, if the threshold exceeds the residual energy.

13. (Original) The system of claim 11, wherein the portion of the audio signal comprises a frame.

14. (Cancelled)

15. (Original) The system of claim 11, further comprising:

A pre-emphasis filter for spectrally flattening the portion of the audio signal.

16. (Previously Presented) A system for classifying an audio signal, said system comprising:

A first circuit for taking a discrete Fourier transformation of a portion of the audio signal for a plurality of frequencies;

A second circuit for calculating a plurality of linear prediction coefficients (LPC) for the portion of the signal;

An inverse filter for measuring an inverse filter response for said plurality of frequencies with said plurality of linear prediction coefficients (LPC);

A third circuit for measuring a mean squared error between the discrete Fourier transformation of the portion of the audio signal for the plurality of frequencies and the inverse filter response;

A fourth circuit for comparing the means squared error to a threshold;

wherein the portion of the audio signal comprises a frame, a decimator for decimating the frame, thereby causing the frame to comprise a predetermined number of samples.

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17. (Original) The system of claim 16, further comprising:

Logic for classifying the portion of the audio

signal as music, if the mean squared error exceeds the threshold and classifying the portion of the audio signal as speech, if the threshold exceeds the means squared error energy.

18-19. (Cancelled)

20. (Original) The system of claim 16, further comprising:

A pre-emphasis filter for spectrally flattening the portion of the audio signal.

21. (New) The method of claim 1, further comprising:

Classifying the audio signal based on the comparison of the residual energy of the decimated portion to the threshold.